

## TRICHOPTERYGIDAE OF AUSTRALIA AND TASMANIA.

DESCRIPTIONS OF SIX NEW GENERA AND ELEVEN NEW SPECIES.

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(Twenty-two Text-figures.)

[Read 24th September, 1930.]

The only species belonging to this family of minute Coleopterous insects previously described from Australia are six species by A. M. Lea in the genus *Rodwayia* Lea, 1907, and one each in the genera *Actinopteryx*, 1872, and *Ptilium*, 1878, by Matthews. With the material sent to me by the authorities of the South Australian Museum for naming, and other which has been collected, it is probable that the numbers will be greatly swelled. The author hopes to deal with these and some island forms in subsequent papers.

One of the chief points of interest centring around this group is the fringed formation of the wings, the hairs composing the fringe often extending completely and uniformly around both anterior and posterior margins as well as apex. The length of these hairs is sometimes ten times as great as the width of the membrane. The hair fringing of the wings, although greatly developed in the Trichopterygidae, is by no means confined to this family, or even to the order Coleoptera, being present in most orders of insects. It appears to be a characteristic of size rather than kind, being usually most pronounced in the most minute forms. As we pass from the larger forms of insect life, such as the Cicadas and large wasps, to the smaller and finally to the extremely minute, a remarkable change commonly occurs when the overall length is in the neighbourhood of one millimetre; hair fringe appears on the posterior or trailing edge of the membrane and, extending towards the apex, passes round to the forward side, until in the smallest species it adorns the complete margin uniformly. Accompanying this transition the supporting rib—radius, costa, subcosta, etc., in the Cicadas—moves from the anterior edge to the centre. Under these conditions propulsion would be by a flapping movement of the wing, like that of a feather fan or a shark's tail. These modifications, I should say, are provided by Nature to enable the creature to cope with meteorological and other physical forces, which in bodies of those dimensions would differ from those with which we are ordinarily acquainted.

### PHILAGARICA, n. gen.

Oval, convex, margin entire. Head of medium size, scarcely visible from above, widest at base, deeply inserted in prothorax, not salient, widely produced anteriorly downwards to a chisel-edge medially excavated widely and faintly. Eyes medium, not visible from above, widely separated, the head conforming to the anterior marginal curvature of pronotum. Antennae eleven-segmented, 1 and 2 large sub-

cylindric, 2 longer than 1 but of equal diameter, 3 to 8 subequal, less than half as thick as 1 and 2, 9 to 11 large, of nearly equal thickness, thicker than 1 and 2, furnished with bristles, segments 9 and 10 spheroidal, 11 longer, pointed at apex. Length of antennae 0.45 of the length of insect without antennae. Palpi exerted. Pronotum widest at base, not exerted, posterior angles very acute, produced backward, lying close to body, conforming to integral margin. Prothorax transverse. Elytra sub-elongate, extending well beyond apex of abdomen, diaphanous, somewhat tapering, rounded at apex. Lateral margins somewhat incurved at middle. Wings long, narrow, lanceolate membrane, fringed with fine long hairs, these hairs ten times as long as width of membrane at middle of latter. Legs: anterior strong, large; intermediate medium; posterior small; tarsi not slender, claws moderate to small. Anterior femora robust, wide, and somewhat flat, margins convex throughout, tibiae more slender, thickening towards apex, margin concave along interior basal half. Coxae: anterior medium, round, almost contiguous; intermediate not nearly contiguous, rather widely separated by "sternal process"; posterior large, almost contiguous, occupying the full width of the body. Metasternum extending nearly to sides of body. Scutellum medium, visible portion rather small, triangular, one-seventh of width of base of pronotum. Sternal process conspicuous, lightly convex.

Genotype, *P. agilis*.

*Philagarica* is perhaps in general facies nearest to *Nossidium* Matthews, figured and described by him in his monograph of the family published in 1872. Some of the most conspicuous differences are: elytra extending far beyond apex of abdomen, metasternum attaining the sides of the body, head more deeply inserted in prothorax and almost concealed from above, pygidium rounded at apex, not tridentate.

PHILAGARICA AGILIS, n. sp. Text-figures 1-3.

Oval, convex, brown, translucent, scarcely pubescent, the several parts forming an integral margin. Without sculpture. Head normal size, very little visible from above, produced downwards, anterior medial excavation conspicuous, conforming to anterior marginal curvature of pronotum. Antennae 0.45 length of body. Eyes not visible from above. Palpi prominent, large. Antennal segments 9, 10 and 11 of equal thickness, furnished with bristles up to one and a half times the length of the segment they are set on. Body widest before middle. Pronotum nitid, widest at base, lateral margins entirely convex, posterior angles very acute, produced backwards and conforming to the integral margin. Elytra slightly pubescent, elongate, extending well beyond apex of abdomen, diaphanous, somewhat tapering, rounded at apex, lateral margins incurved at middle. Wings long narrow, the hairs of fringe equal and about ten times as long as width of membrane at middle. Hairs very pale, almost white. Membrane colourless with blackish patches. Legs: anterior strong, large, intermediate medium, posterior small; tarsi not slender, claws moderate to small. Sternal process conspicuous, lightly convex.

Length, 0.57 mm.; width, 0.28 mm.

*Habitat*.—Eungai, Macleay River District, N.S.W. (Lea and Deane).

Type in Coll. Deane; co-types in South Australian Museum, National Museum, etc.

## PHILAGARICA PILOSA, n. sp.

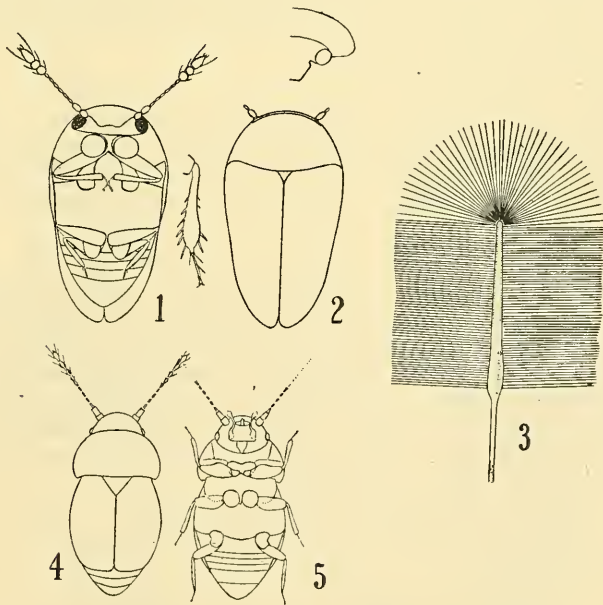
Elliptical, convex, light-brown, pilose, translucent, widest at middle. Head less deeply inserted, less concealed from above than *P. agilis*, more produced at mouth. Palpi rather small, concealed. Eyes just or almost visible from above, medium, moderately separated. Antennal segment 10 thicker than 9, 11 thicker than 10. Legs: posterior large. Antennae length 0.44 of the length of the body, segment 9 not as thick as 10 and 11 and considerably shorter than 8, segments 3-8 slender, gradually thickening, subcylindric, 1 and 2 large, 2 larger than 1. Pronotum paler than elytra, basal margin convex posteriorly at centre but reverses near angles, which are acute but small. Elytra entire, convex, darker than pronotum, strongly pilose, slightly translucent on apical two-thirds, scarcely dehiscent at apex, but often not quite closed in repose, extending well beyond tip of pygidium, without depression along suture, lateral margins not incurved at middle. Wings 1.92 times length of body, narrow, hairs of fringe dark-brown. Tarsi slender, claws large. Coxae: anterior globular, contiguous; intermediate rather widely separated by the mesosternal process; posterior contiguous, occupying the full width of body. Sternal process convex, prominent, hastate.

Length, 0.74 mm.; width, 0.35 mm.

*Habitat*.—Waratah, Tasmania (Lea).

Type in Coll. Lea; co-types in Coll. Lea and Coll. Deane.

This species may be compared with the previous one as follows: Body larger, about 30 per cent. on the length, paler, more strongly pilose. Head less clearly cut, front and clypeus less sharply defined; palpi less prominent and smaller, not



Text-figs. 1, 2.—*Philagarica agilis* Deane.

Text-fig. 3.—Wing of *Philagarica agilis* Deane.

Text-figs. 4, 5.—*Leaduadicus tolerabilis* Deane.

so vitreous. Antennae with segments 9, 10 and 11 increasing instead of equal. Sternal process much narrower. Posterior coxae having anterior plate narrower. Posterior legs longer.

LEADUADICUS, n. gen.

Oval, convex, widest across elytra, margin not entire. Head medium to small, not concealed from above, widest across eyes, slightly exerted, margin concave before eyes, rounded in front. Eyes medium to small, easily visible from above. Antennae 11-segmented, 1 and 2 large, 1 thickest, cylindrical, 2 slightly tapering towards apex, 3 to 8 slender, 3 slightly tapering towards apex, 4, 5 and 6 cylindrical, 7 thickening towards apex, 8 and 9 elongate-elliptic, 8 to 11 increasing in size; length of antennae 0.48 of length of body. Palpi prominent, terminal joint large, oval or globular. Pronotum widest before base, nearly as wide as elytra; posterior angles not acute, lateral margins strongly convex, anterior margin convex, posterior concave on lateral thirds; base wider than base of elytra. Elytra oval, convex, widest at middle, subtruncate, exposing 2 or 3 dorsal segments of abdomen, not or only lightly rounded at basal angles. Legs moderate, subequal. Coxae: anterior strongly contiguous, subquadrilateral; intermediate almost contiguous, junction masked by narrow sternal process; posterior remote, medium to small. Femora: anterior robust, swollen at middle on anterior margin; intermediate robust, margins convex throughout; posterior medium. Tibiae subequal, medium; apices of anterior rounded, of intermediate truncate, of posterior pointed. Tarsi medium. Prosternum: divisional plates distinct. Mesosternum rounded at sides. Metasternum attaining sides of body; posterior margin of intercoxal piece lightly rounded. Abdomen with six visible ventral segments; basal, 2nd, 3rd and 4th not attaining side margins of elytra. Scutellum large, triangular, more than one-third the width of base of elytra.

Genotype, *D. tolerabilis*.

*Leaduadicus* is not closely allied to any existing genus. It differs from *Ptenidium* notably in having elytra truncate instead of elongate and rather pointed. It has the apical dorsal segments of abdomen exposed. The whole form is wider and more robust. The posterior coxae are more widely separated.

LEADUADICUS TOLERABILIS, n. sp. Text-figures 4, 5.

Widely obovate, light-brown, moderately convex, sparsely pubescent. Head widely rounded in front, irregularly clothed with fine pale pubescence; deep-brown. Pronotum convex, light-brown, uniformly pubescent, anterior margin rounded with sides, not forming humeral angles, lateral margins very convex, pale; posterior margin dark-brown. Elytra oval-quadrangle, truncate, light-brown, uniformly pubescent; basal angles not rounded. Abdomen pale-brown, each ventral segment with a row of longish hairs. Pro-, meso- and metasternum flavous. Tarsi, palpi and segments 3 to 9 of antennae pale-yellow.

Length, 1.125 to 1.25 mm.; width, 0.55 to 0.58 mm.

*Habitat*.—Ourimbah, N.S.W., in rotting leaves (A. M. Lea).

Type in Coll. Lea.

LEADUADICUS IMPERIALIS, n. sp. Text-figures 6, 7.

Widely obovate, brown to dark-brown, convex, strongly pubescent. Head widely rounded in front, deep-brown, pubescence white. Pronotum dark-brown,

pubescent, convex; anterior margin not merging into sides, forming obtuse humeral angles, these rounded; lateral margins convex. Elytra subquadrate, truncate, dark-brown, strongly pubescent, pubescence white to pale-yellow; basal angles rounded. Abdomen brown, each ventral segment with a row of longish hairs. Pro-, meso- and metasternum light-brown. Tarsi, palpi and antennae flavous.

Length, 1.02 mm.; width, 0.55 mm.

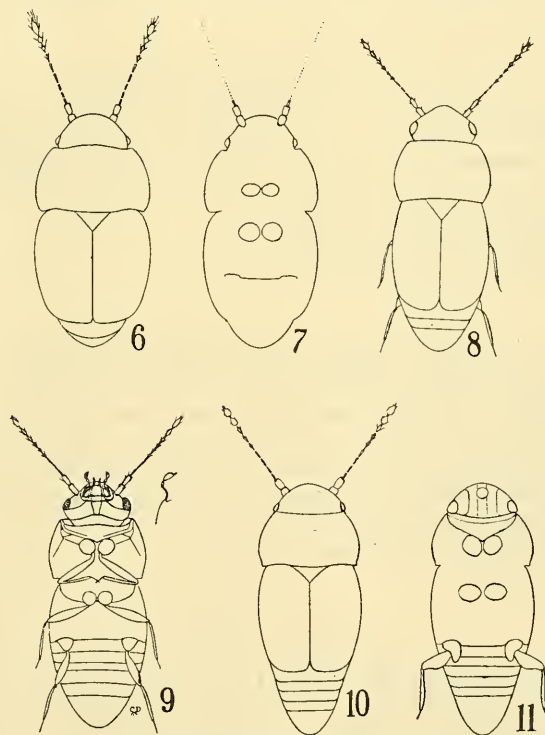
*Habitat*.—Tambourine, Queensland (A. M. Lea).

Type in South Australian Museum.

*L. imperialis* differs from *L. tolerabilis* in having length smaller and less variable, width also less variable; form wider in proportion. The colour is much darker and the pubescence thicker and whiter. The humeral angles of pronotum are formed, the basal angles of elytra are rounded, and the apex of abdomen is less exposed. The posterior margin of metasternum is less curved.

ACHOSIA, n. gen.

Elongate-oval, subdepressed, widest across elytra. Head largely visible from above, prominent, widest across eyes; front medium, margins straight near insertion of antennae, capable of being exerted, narrowing a little towards base. Eyes easily visible from above. Mouth not produced. Antennae 11-segmented, basal segment and 2 large cylindrical, 3, 4 and 5 slender, 6 to 11 gradually



Text-figs. 6, 7.—*Leaduadicus imperialis* Deane.

Text-figs. 8, 9.—*Achosia lanigera* Deane.

Text-figs. 10, 11.—*Achosia femoralis* Deane.

becoming larger. Palpi elongate, 4-segmented; basal segment cylindrical, 2 elongate, 3 very large, 4 minute, basal and stem of 2 forming a swan-neck. Prothorax: posterior angles obtuse, distinct; component ventral plates well marked; widest before base, almost as wide as body across elytra. Elytra widest at middle, subtruncate, exposing 3, 4 or 5 dorsal segments of abdomen; slightly dehiscent at apex. Legs uniform; coxae: anterior and intermediate globular, contiguous or almost so; posterior lamellate, very remote, rather small. Mesosternum without medial carina, but having a small shallow granule on the intercoxal process. Metasternum extending to sides of body, hind margin scarcely excavated for insertion of coxae; anterior outer angles acute. Scutellum triangular, large, more than one-third the width of pronotum at base. Abdomen with six visible ventral segments.

Genotype, *A. lanigera*.

*Achosia* has for its nearest ally in the existing genera, *Ptinella*, from which it differs conspicuously in having posterior angles of pronotum not acute, elytra not so truncate; antennal segments 6 to 11 gradually becoming thicker towards the apex, segments 3, 4 and 5 more slender, almost cylindrical. It is also allied to *Cnemadoxia* described herein, the chief differences being antennal segments 8 to 11 elongate-subovate, tapering towards apex, less plumage; mouth parts more centrally situate; frons less narrowed; humeral angles of pronotum more distinct; prothoracic sternites distinct; form narrower.

*ACHOSIA LANIGERA*, n. sp. Text-figures 8, 9.

Pubescent, brown. Head sub-trapeziform; front narrow, rounded; rather exserted. Antennal segments 3, 4 and 5 cylindrical, 6 to 11 pointed both ends. Pronotum wider at base than apex. Elytra with apices greatly rounded at interior corners, sloping away at sides. Femora slender. Tarsi slender.

Length, 1.25 mm.; width, 0.49 mm.

*Habitat*.—Glen Innes, N.S.W. (A. M. Lea).

Type in South Australian Museum.

*ACHOSIA FEMORALIS*, n. sp. Text-figures 10, 11.

Elongate-oval, somewhat depressed, light-brown, pilose, slightly wider across elytra than prothorax, widest at one quarter from base. Head largely visible from above, rather deeply inserted, widest across eyes. Eyes rather large, visible from above. Mouth somewhat produced. Antennal segments 10 and 11 large. Scutellum rather broad. Elytra normal. Abdomen elongate. Posterior coxae somewhat produced longitudinally backwards; posterior femora dilated on hind margin.

Length, 1.26 mm.; width, 0.51 mm.

*Habitat*.—Tamworth, N.S.W. (A. M. Lea).

Type in Coll. Lea.

*EPOPTIA*, n. gen.

Oval, very convex, especially below, widest across elytra. Head rather large, easily visible from above, widest across eyes, widely rounded in front. Eyes medium, little visible from above. Antennae 11-segmented, 1 and 2 large, 1 cylindrical, 2 barrel-shaped, apical margin projecting slightly at outer edges, 3 to 9 slender, 3 thickening towards apex, 4 elongate-conic, 5 and 6 elongate-elliptic, 7 and 8 oval, 9 similar to 8 but larger, 10 and 11 very large, flask-shaped, 7, 9, 10

and 11 but not 8 furnished with setae. Length of antennae 0.47 of length of body. Pronotum mobile, very convex, widest at middle, nearly as wide as body, anterior and side margins very convex throughout, basal margin with a wide space stretching from side to side to permit of movement relatively with the mesothorax. Elytra oval, convex, entire, extending beyond apex of abdomen, not dehiscent at apex, fitting unusually closely along entire suture, widest at one-third from base, margins inflexed on basal three-quarters to cover edges of meta-thorax, forming epipleurae. Wings long, stalked; membrane narrow, bent; hairs of fringe six times as long as width of membrane at middle. Legs slender, subequal. Coxae: anterior contiguous, junction hidden by prosternal process, somewhat transverse; intermediate globular, contiguous, junction hidden by metasternal process; posterior distant. Femora moderate. Tibiae: anterior truncate, thickening towards apex; intermediate normal, thickening towards apex, finely serrate on apical one-third or more of inner margin; posterior thickening at first, then tapering to apex, finely serrate on apical half of inner and one-third of outer margin. Tarsi rather short, claws rather large. Prosternal process rather long, prominent, slender, pointed. Metasternal process rather long, slender, blunt. Scutellum very large, triangular, more than half the width of base of pronotum, indistinct. Abdomen seven-segmented, basal segment fixed, or semifixed, all others mobile, retractile.

Genotype, *E. rotunda*.

*Epoptia* has its closest ally in the previously described genus *Ptenidium*, by comparison with which the following points of distinction are easily noticeable: Form more robust, wider, more highly convex; head set downwards, front decumbent; antennae differently clothed, pedicel without setae, this and basal thicker, segment 10 larger than 11, 10 and 11 only forming the club; eyes not so prominent; pronotum much more convex, almost or quite as wide as elytra; these with apical margin entire; pronotum with a wide tergite running from side to side at base; scutellum much larger; posterior coxae more distant; abdomen contracted, not nearly extending to apices of elytra.

*Note.*—The scutellum is indistinct and tangential illumination is required to distinguish it.

*EPOPTIA ROTUNDA*, n. sp. Text-figures 12–14.

Oval, very convex, black, nitid, with sparsely scattered short hairs or setae. Head widely rounded anteriorly, front somewhat produced downwards. Antennae pale-yellow, rather small, slender, 0.48 of length of body. Pronotum very sparsely setose, very convex. Elytra oval, convex, entire, nitid, dark-brown to black, apices semi-transparent, flavous, the colour extending around side margins, tapering and disappearing at widest part of body. Wings: membrane long, narrow, colourless; hairs of fringe dark, visible through apical parts of elytra. Legs flavous.

Length, 1.06 mm.; width, 0.57 mm.

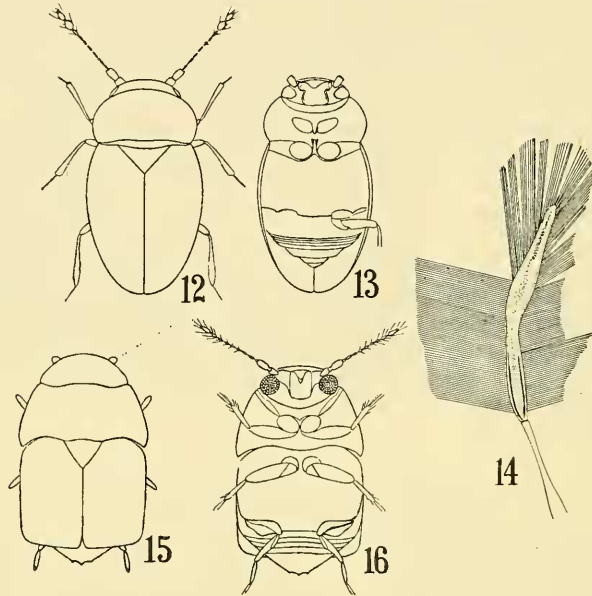
*Habitat.*—Launceston, Tas. (A. M. Lea).

Type in South Australian Museum.

*TRICHOPTERYX AUSTRALICA*, n. sp. Text-figures 15, 16.

Quadrata, lightly convex, dark-brown to nearly black, opaque, pilose, dorsal surface strongly granulate, sides parallel. Head largely visible from above; eyes hardly visible from above, large. Antennae rather short, slender, segments 1 and 2 large, subcylindric, 2 largest, 3 to 8 slender, elongate-oval, each being thicker

at apical half than basal, 9 to 11 larger, increasing in size and diameter, 11 largest of the three but not so large or so thick as 2, 7 and 8 not thicker than 5 and 6. Pronotum scarcely wider than elytra, widest at or near base; posterior angles not very acute. Elytra quadrate, parallel, truncate, exposing pygidium, opaque.



Text-figs. 12, 13.—*Epopitia rotunda* Deane.

Text-fig. 14.—Wing of *Epopitia rotunda* Deane.

Text-figs. 15, 16.—*Trichopteryx australica* Deane.

Legs: anterior and intermediate nearly equal; posterior smaller and more slender; tarsi very slender, rather long; coxae: anterior round, medium, contiguous; intermediate small, nearly contiguous; posterior very remote. Metasternum: posterior intercoxal production moderate or weak. Scutellum: visible portion large, nearly one-third the width of pronotum at base.

Length, 0.78 mm.; width, 0.47 mm.

*Habitat*.—Melbourne (C. Deane), Ferntree Gully, etc. (C. Oke).

Type in Coll. Deane.

The dorsal facies of this species somewhat resembles that given by Matthews for *T. volans*, but posterior outer angles of elytra are curved downwards, and head larger. Antennae are 0.44 of length of insect as against 0.55 for Matthews' outline figure for the genus.

#### COCHLIARION, n. gen.

Oval, highly convex above, rather flat below, margin entire. Head medium to small, visible from above, deeply inserted in prothorax, lightly salient, front not produced, mouth produced. Eyes wanting. Scarcely conforming to anterior margin of pronotum. Antennae rather short, 0.31 of the length of body, 11-segmented but appearing only 10-segmented, segment 3 contained within 2; 1 and 2



large, 3 to 9 slender, 10 and 11 large forming the club, bristles twice as long as segment on which they are set. Setae on club long. Body receding into shell cavity formed by pronotum and elytra as in *Coccinellidae* and *Paropsis*. Widest at base of pronotum. Pronotum widest at base, posterior angles sharp, but not acute. Elytra entire, extending beyond abdomen, narrowing towards apex, not dehiscent at apex. Wings absent. Legs: femora robust, having deep grooves for the reception of the tibiae. Tibial interior outline convex, exterior nearly straight. Intermediate tarsi with a hook process attached to base of basal segment. Coxae: anterior elongate, transverse, separated by small prosternal positive process; intermediate subtriangular, separated by small mesosternal receptive process; posterior large, not nearly contiguous, extending to sides of body. Abdomen with six visible ventral segments, taper conforming to elytra. Metasternum attaining the sides of the body, scarcely produced anteriorly between the coxae. Mesosternal carina with a groove for the reception of the prosternal process.

Genotype, *C. victoriense*.

*Cochliarion* differs widely from all previously described genera, especially in having form more compact, even more so than in *Rodwayia*; margin more oval, more entire; appendages secluded in repose; more convex above; head decumbent; anterior coxae narrower and more oblique. This genus is blind, a feature which it possesses in common with *Rodwayia* of Australia and *Limnodes* of America. Also the antennae have a passing resemblance to those of *Rodwayia*, one of the chief differences being the greater size of the basal segment in the new genus. In other features and in general form *Cochliarion* in no way suggests *Rodwayia*, the former being almost subnavicular, while the latter is subquadrate. The striking and conspicuous form of sternal process, so characteristic of *Rodwayia*, does not appear in *Cochliarion*.

COCHLIARION VICTORIENSE, n. sp. Text-figure 17.

Oval, brown. Antennae yellow, segments 1 and 2 barrel-shaped, 3 of peculiar form, enclosed within 2, 4 cylindric, 5 and 6 ovoid, 7, 8 and 9 nearly globular and equal or very slightly increasing in width, 10 and 11 large forming the club, 10 nearly globular, 11 pointed. The bristles more than twice as long as the segment on which they are set. Legs rather short, femoral grooves deep. Coxae: anterior narrow, diagonal; intermediate triangular, their anterior and approaching angles rounded. Intermediate tarsal appendages long, claws almost obsolete. Mesosternal median groove small, deep, proceeding to a blunt carina.

Length, 0.87 mm.; width, 0.5 mm.

*Habitat*.—Ferntree Gully, Vic. (C. Oke).

Type in Coll. Deane.

RODWAYIA GRANDIS, n. sp. Text-figures 18, 19.

Large, ovate-quadrate, widest across pronotum at one-third from base, convex, reddish, marginal outline interrupted at hind angles of prothorax and at apex of elytra. Head visible from above, conforming in front to the anterior curvature of pronotum, paler than pronotum. Palpi small. Antennae 10-segmented, robust, short, 0.22 of length of insect without antennae, basal segment small, deeply inserted, 2 large, ellipsoidal, 3 to 7 normal, cylindric, of equal thickness, 8 sub-conic, much smaller than 9, 9 globular, 10 largest, pointed, 8, 9 and 10 forming the club, bristles not longer than the segments on which they are set. Pronotum:

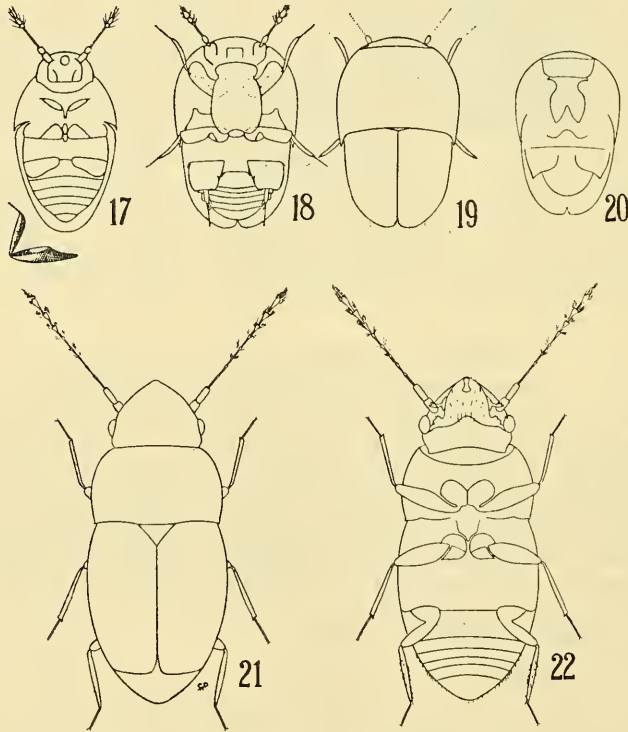
posterior angles very acute, projecting backwards. Legs: anterior and intermediate rather long; tibiae curved, convex sides exterior, long, slender, not thickening towards apex; anterior and intermediate femora very broad and flat; posterior femora concealed by coxae. Sternal process large, posterior medial and anterior side marginal incurvatures very shallow. Posterior coxae large, quadrate, widely distant. Abdomen with six visible ventral segments. Elytra extending beyond pygidium, slightly tapering, rounded at apex.

Length, 0.96 mm.; width, 0.61 mm.

*Habitat*.—Belgrave, Vic. (C. Oke).

Type in Coll. Deane.

*R. grandis* differs from *R. orientalis* (Text-fig. 20) notably in having posterior angles of pronotum less acute, posterior coxae almost square, and the prosternal process larger and much less excavated all round; the insect as a whole is considerably larger; colour darker and redder; pubescence coarser.



Text-fig. 17.—*Cochliarion victoriense* Deane.

Text-figs. 18, 19.—*Rodwayia grandis* Deane.

Text-fig. 20.—*Rodwayia orientalis* Lea.

Text-figs. 21, 22.—*Cnemadoxia okei* Deane.

#### CNEMADOXIA, n. gen.

Elongate-elliptic, very large, widest across elytra at one-third from base. Head, pronotum and elytra clothed with short hairs. Head largely visible from above, large, subtriangular, pointed anteriorly. Eyes easily visible from above.

Antennae long, slender, 11-segmented, 1 and 2 very large, cylindric, 3 to 11 slender, clavate, 7, 8, 9 and 10 gradually increasing in size, 10 and 11 subequal; setae fine, long, numerous. Pronotum widest before base, posterior angles not acute; side margins uniformly rounded. Elytra widest behind base, truncate, a little dehiscent at apex. Legs long; femora slender, straight, nearly equal. Coxae: anterior contiguous; intermediate nearly contiguous; posterior very remote. Metasternum attaining the sides of the body. Scutellum: visible portion large, more than one-quarter the width of base of pronotum. Metasternal process prominent but not carinate, of peculiar form. Abdomen with six visible ventral segments, projecting beyond apices of elytra.

Genotype, *C. okei*.

*Cnemadoxia*, when compared with previously described genera from other parts of the world, is possibly nearest to *Ptiliodes* figured in Matthews' monograph of the family (Supplement). The chief differences are: form more oval, much larger; antennae slender, segments 6 to 10 elongate-conic, each thickening towards the apex, 5 to 11 furnished with long hairs, head narrowly produced in front; prothorax widest behind middle. Compared with *Ptinella* it has antennal differences as above, also front and hind angles of pronotum not acute, posterior margin of metasternum not deeply excavated at coxal insertions; elytra less truncate; dorsal apical abdominal segments less exposed. From *Ptilium* it differs in antennal segments 6 to 10 subclavate; hind angles of pronotum more distinct; elytra less elongate; coxae narrower laterally, and widely separated. It also bears certain resemblances to the genus *Achosia* described above (see note, p. 482).

CNEMADOXIA OKEI, n. sp. Text-figures 21, 22.

Elongate-elliptic, large, pale-yellow, pubescent. Head narrowly pointed in front. Mouth finely produced. Palpi prominent, bifid. Antennae very slender, long, segments 6 to 11 clothed with numerous long fine hairs, 6 to 10 increasing in size, 10 and 11 almost equal; basal and second segment cylindric, 1 slightly thicker than 2. Pronotum with side margins entire, more strongly curved anteriorly. Elytra: side marginal curvature elliptical, conforming to sides of abdomen. Legs long; femora robust; tibiae slender, straight; anterior and intermediate scarcely thickening towards apex, posterior thickest at middle, tarsi well formed. Abdomen exposed beyond apex of elytra.

Length, 1.37 mm.; width, 0.54 mm.

*Habitat*.—Victoria (C. Oke, in nests of the ant, *Amblyopone obscura*).

Type in Coll. Deane.

In submitting the foregoing descriptions of new genera and species, and also a number of other new genera and species of this family which, it is hoped, will follow in subsequent papers, I have to thank Mr. A. M. Lea and the authorities of the South Australian Museum, Miss Winifred Kent-Hughes and the authorities of the Canberra Museum, and Mr. C. Oke for the gift of specimens and loan of others, Mr. F. Erasmus Wilson, Mr. W. B. Gurney and Mr. C. Oke for the loan of literature, Mr. R. Blackwood for the gift of specimens, and Mr. A. M. Lea for checking the descriptions contained in the foregoing paper.